



Board Beat



Spring 2000

Nuclear Materials Pose Challenge for DOE

The Savannah River Site's (SRS) primary mission was to produce nuclear materials in support of the nuclear weapons program. The canyon facilities in F-Area and H-Area used a chemical separations process to extract and recover uranium, plutonium and neptunium. Some of these materials were used for the weapons program and others were used as power sources to support deep space exploration programs.

When the production of nuclear materials was officially terminated in 1991, many of these materials were somewhere in the process of being separated and recovered. Additionally, reactor fuel and target elements were scheduled to go through the separations process. These elements were not designed for long-term storage, since they typically were moved quickly to the separations process.

Environment, health and safety issues are associated with the stability and storage of nuclear materials at SRS. This problem is not unique to SRS, as there are similar materials at other DOE sites across the country. Additionally, the U.S. Government is responsible for a significant amount of reactor research fuel that was "loaned" to other countries. The SRS may continue to play a role in the stabilization and safe storage of materials in addition to those currently at the site.

The CAB has been following nuclear materials issues at SRS since it was formed in 1994. The CAB's interest in nuclear materials at the site does not relate to the production of nuclear materials or defense missions. Rather, the CAB is interested in nuclear materials issues as they relate to the environment, health and safety.



SRS has two canyon facilities that process nuclear materials.

The Defense Nuclear Facilities Safety Board (DNFSB) is also concerned about the safety of nuclear materials across the DOE complex. The DNFSB is an independent organization within the executive branch, chartered in 1989 with the responsibility for independent, external oversight of all activities in DOE's nuclear weapons complex affecting nuclear health and safety. (See sidebar below) In 1994, the DNFSB issued a Recommendation (94-1) to the Secretary of Energy regarding the stabilization of these materials to "prevent deterioration leading to the inevitable spread of radioactive contamination." Although the DNFSB has recognized that progress has been made at defense nuclear facilities in remediating the most hazardous materials, it believes that "severe problems continue to impede other remedial measures that had been promised in the original

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Challenge

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Implementation Plan issued by the Secretary.” The DNFSB recently issued a new Recommendation (2000-1) to the Secretary regarding the stabilization and storage of nuclear materials.

The CAB will continue to monitor and interact with DOE regarding issues associated with nuclear materials. They have been briefed by the DNFSB and will be briefed by DOE regarding the DNFSB’s latest recommendation. For additional information on the DNFSB’s recommendations, check their website at www.dnfsb.gov.

The Defense Nuclear Facilities Safety Board

The DNFSB consists of five members appointed by the President for staggered 5-year terms. The Board is supported by over 100 technical and administrative staff personnel that reviews operations, practices, and occurrences at DOE’s defense nuclear facilities and makes recommendations to the Secretary of Energy that are necessary to protect public health and safety. DNFSB staff personnel are currently on 2-3 year rotational assignment at DOE sites, with two each at the Rocky Flats, Pantex, Hanford, and Savannah River sites.

Formal written recommendations to the Secretary of Energy are the most powerful mechanism used by the DNFSB for advising the DOE with regard to safety. Since its inception the Board has issued 40 recommendations. In the event DNFSB audits disclose an imminent or severe threat to public health and safety, the Board is required to transmit its recommendations directly to the President, as well as to the Secretaries of Energy and Defense. For each recommendation, the Secretary must provide a response that accepts or rejects the recommendation and, if accepted, provide an implementation plan to resolve the acknowledged issues. To date, the Secretary of Energy has accepted every Board recommendation, though two were accepted with conditions or exceptions described in the Department’s acceptance letters.

The DNFSB and its staff annually conduct about 200 site visits of an average duration of 2-3 days. The DNFSB communicates with the DOE through trip reports, requests for information, other written correspondence, and meetings. The DOE and the DNFSB share the common goal of ensuring adequate protection of public and worker health and safety and the environment at defense nuclear facilities.

At the CAB’s request, DNFSB SRS site representatives have provided briefings on issues of interest to the CAB. For additional information on the DNFSB, check the website at www.dnfsb.gov.

Essay Winners

*"We depend on the earth.
So reduce, reuse and
recycle. These are known
as the 3 R's."*

Brianna Anderson

*"Since I want the earth to
be cleaner I pick up trash
at home and school."*

*Everyone needs to help
our earth so everyone
can enjoy the environ-
ment."*

Cherish Richardson

Brianna Anderson and **Cherish Richardson** of Blue Ridge Elementary School in Martinez, GA were honored on September 27, 1999, for their winning essays regarding their role in protecting the environment.

Check out our website at

www.srs.gov

for the latest news regarding the
SRS Citizens Advisory Board!



Recently, Jimmy Mackey and Maria Reichmanis, newly elected SRS CAB Environmental Remediation Committee Chair and Vice Chair respectively, toured various waste units at SRS and received briefings from SRS personnel to become more familiar with the Environmental Remediation Program. A similar orientation was provided for Wade Waters, newly elected Chair of the Waste Management Committee as well.

Recent Recommendations Highlighted

Since the last publication of this newsletter, the following recommendations have been initiated by the SRS Citizens Advisory Board:

Canyon Utilization and Spent Nuclear Fuel Melt and Dilute Technology

The Board recommends that the Secretary of Energy provide formal assurance that the SRS reprocessing capability will be retained in an operational status suitable to process aluminum-based spent fuel until the melt and dilute technology and engineering development program is successful and NRC formally deems it acceptable for disposal in the national repository and the melt and dilute processing facility is constructed and operational.

Hazardous Waste Combustors Clean Air Act SRS Consolidated Incinerator Facility (CIF)

A recommendation that DOE choose the alternative that minimizes cost and balances equity across the DOE complex for operating and/or closing its three incinerators.

Resource Conservation and Recovery Act (RCRA) Permit Modification for the Mixed Waste Management Facility at SRS

The SRS CAB requested that DOE, EPA and SCDHEC schedule and hold a public meeting with stakeholders in order to develop a "common sense approach" to remediating the Southwest Plume. The Board also requested a list of adverse health effects, the criteria used to determine these effects and the remediation costs and benefits based on the inventory of contaminants in the SW Plume now and at the end of institutional controls.

Fish Consumption Advisories - SCDHEC

A recommendation that SCDHEC fish advisory documents include comments that put the information in perspective; that the SRS CAB be given the opportunity to review the draft 2000 fish advisories; and that once finalized, the documents be given wide distribution including Spanish translations. The CAB also requested that SCDHEC continue developing information on salt water fish.

Yucca Mountain Draft Environmental Impact Statement (EIS)

A recommendation to open Yucca Mountain on schedule as outlined in the EIS and to initiate steps that would lead to congressional reconsideration of the 70,000 MTHM repository limit. The Board recommended that DOE more correctly assess the true risks of a no-action analysis and re-evaluate the proposed management and containment of "sealed source" and other general wastes. The Board also requested a comparative cost benefit analysis of commercial spent fuel, DOE spent fuel and DOE high level waste to establish the optimum order of shipment of materials to the repository.

Proposed EPA Rule Change

In response to a request for comments from EPA on a proposed rule change that impacts the management of low-level mixed wastes, the Board supported the recommended proposed rule be adopted with one revision. The Board recommended that EPA revise the proposed rule to exempt low-level mixed waste from the Resource Conservation & Recovery Act (RCRA) for those DOE low-level waste disposal facilities that have an approved Disposal Authorization Statement. This change would significantly reduce the costs of disposal of mixed low-level wastes.

Waste Isolation Pilot Plant (WIPP) RCRA Permit/Transuranic (TRU) Waste

The Board resubmits previous recommendations regarding the WIPP RCRA Permit and supports DOE in its lawsuit regarding the permit and its attempt to reduce administrative burdens without jeopardizing health and safety. The Board feels strongly that New Mexico Environmental Department should not have regulatory authority over how SRS prepares its waste for shipment to WIPP, which is already regulated by SCDHEC.

Selection of High Level Waste Salt Processing Alternative

This recommendation asks DOE to commit to a salt waste processing alternative technology selection schedule by September 2001 and ensure it meets regulatory commitments. The Board also requested an overall schedule for implementation and an assessment of incremental risks and benefits associated with an early technology decision based on one acceptable technology versus a late technology decision potentially based on multiple acceptable technologies. ■

CAB Members Participate in National Workshop on Stewardship

The Oak Ridge Site Specific Advisory Board hosted a Stewardship Workshop in Oak Ridge, Tennessee in October 1999. Fifty-five Site Specific Advisory Board (SSAB) members representing nine sites from across the country and 75 other participants including representatives from the Department of Energy, numerous state agencies and other organizations attended the workshop. Beckie Gaston-Witter, Wade Waters, Tom Costikyan and P.K. Smith attended from the Savannah River CAB. Keith Collinsworth and Brian McKinnis from SCDHEC and Brian Hennessey from DOE also attended. Mike Schoener attended as a workshop facilitator. The workshop started on Monday evening October 25 and ran through Wednesday.

The purpose of the workshop was to improve stakeholder understanding of stewardship issues, foster dialogue among SSABs about stewardship, and identify areas of shared concern where DOE should consider additional activities for stewardship planning and implementation. The Oak Ridge SSAB offered to sponsor this workshop because they have spent a considerable amount of time and effort in this area, including the development of a stakeholder report on stewardship for the Oak Ridge Reservation.

The workshop included a presentation by Mr. Jim Werner from the Office of Long Term Stewardship at DOE Headquarters. The workshop also included panel discussions with representatives from DOE-HQ, a DOE field office, EPA, the State of Tennessee, and the City Manager from Oak Ridge. Each of these panel members provided a different perspective on the issue of stewardship.

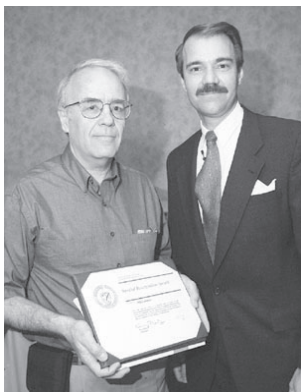
The remainder of the workshop was spent in breakout groups and plenary sessions discussing issues in the following five core topic areas related to stewardship:

- Funding
- Roles and Responsibilities
- Trade-offs and Relationships Between Cleanup and Stewardship
- Community Involvement
- Information and Sustainable Responsibility

The workshop concluded on Wednesday with the development of "Next Steps for Stewardship" – two developed for each of the five core topic areas. Although these "Next Steps" do not represent the specific position of the SSAB's

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Farewell



Above: Bill Lawless receives a recognition award from DOE-SR Manager Greg Rudy

Right: Site officials and regulators recognize Ann Loadholt for her service as SRS CAB Chairman from 1997-2000



The SRS Citizens Advisory Board bids farewell to two of its founding members. Ann Loadholt and Bill Lawless joined the original board in February 1994. Both have made outstanding contributions to the Board over the past six years. Ann Loadholt has served as Chair of the

Board since 1997 and was Vice Chair in 1996. Bill Lawless served as the Environmental Remediation & Waste Management Subcommittee Co-Chair from 1995-2000. A large majority of the CAB recommendations to date as well as the Board's home page, and its use of independent scientific peer reviews and public focus groups can be attributed to Dr. Lawless. The SRS CAB commends Ms. Loadholt and Dr. Lawless for their valuable donations to the Board.

Savings Realized by Shift in LLW Disposal

On July 27, 1999, the SRS CAB agreed with a Solid Waste System Plan recommendation to use the E-Area trenches for disposal of low level waste (LLW) meeting the trench Waste Acceptance Criteria (WAC). Studies associated with the System Plan had found that about 50 percent of the LLW now going to the vaults would meet the trench WAC. This meant that expensive vault space originally designed for high activity LLW was being occupied by low activity LLW.

Recently, SRS reported that by transferring low activity waste from the vaults to the trenches and by using the trench for generated LLW that meets the WAC, the life expectancy of the existing vault would be extended for 14 years. SRS predicts a total saving of over \$63 million dollars by utilizing the trenches instead of the vaults.

As stated in its Recommendation 94, the SRS CAB believes the Performance Assessment (PA) and the Composite Analysis (CA) performed on the vaults provides a level of assurance that disposal of LLW in the trenches is protective of human health and the environment. The PA and CA analyzed the potential release and migration of radionuclides from both the vaults and the trenches over a 10,000-year period. They



The E-Area vaults were originally designed for disposal of high activity low-level waste.

also established the maximum number of curies allowed to be disposed in a vault or trench to meet drinking water standards in the groundwater during this 10,000-year period. ■

SRS CAB to Pilot New Committee Meeting Format

In an effort to improve Board member and Regulator participation in SRS Citizens Advisory Board Committee meetings, the SRS CAB will pilot a new one-day meeting format for committee meetings to be held on the 4th Tuesday of months without regular bi-monthly CAB business meetings. The SRS CAB will test the new format in April, June and August of 2000. The three pilot meetings will be held at different times of the day and evening to determine which format optimizes stakeholder participation from all segments of the interested public.

“We hope that this new format will increase participation by our regulators, cut down on the number of evening meetings, reduce Board member travel, and allow for committee participation by members of the Board unable to join us in the evenings,” said Karen Patterson, newly-elected CAB Chair. “We’ve changed our committee structure, so there was the potential for more than our average three evening meetings

per month, in addition to various focus group or working group meetings,” said Patterson.

This streamlining effort was suggested during a Process Improvement Retreat as a way to improve CAB productivity. Although Board member and regulator absence from committee meetings has improved recently, it has been an issue of concern among CAB members for several years. The goal is to improve participation for the regularly scheduled meetings with sufficient early notification. “We don’t want this to adversely impact the participation of those members of the public who have participated loyally over the past few years,” says Patterson, “but we do think it is very important that the work of the CAB be distributed among all Board members. That is why we are trying meeting at different times of day. We hope to find the best mix of CAB, regulator, and interested public participation.” ■

Welcome Aboard New Members and Staff

Sallie Connah, Charleston, SC
Perry Holcomb, North Augusta, SC
William Lawrence, Aiken, SC
Jean Sulc, St. Helena Island, SC
Carolyn Williams, Barnwell, SC
William Willoughby, Columbia, SC

Rick McLeod of Crescent Environmental, Inc.
joined the CAB in 2000 as its technical advisor.

CAB Offers Speakers



The SRS CAB recently began a Speakers Bureau to provide presentations to civic and club organizational meetings in the two-state area. Several SRS CAB members have completed speaker certification and are available to provide either a brief 10-minute presentation regarding the SRS Citizens Advisory Board or a more detailed 30-minute presentation regarding the Savannah River Site as well as the CAB's involvement in site activities. The following presentations have been provided to date:

February 3, Sertoma Club, Columbia, SC, Tom Costikyan
February 16, Landing Mens Club, Savannah, GA, Wade Waters
February 22, Garden Club, Aiken, SC, Maria Reichmanis
March 2, Republicans of Beaufort, SC, Tom Costikyan
March 6, Methodist Mens Fellowship, Sav., GA, Wade Waters
March 8, Bluffton Rotary Club, Bluffton, SC, Tom Costikyan
April 3, Lions Club, Aiken, SC, Maria Reichmanis

If you are interested in having an SRS CAB speaker at your group's next meeting, please call 1-800-249-8155. ■

Don't forget to check out our website at

www.srs.gov

**for the latest news regarding the
SRS Citizens Advisory Board!**

Member Spotlight



Maria Reichmanis

Maria is a patent attorney in Aiken, S.C. She holds a B.S., M.S. and Ph.D. in Physics and holds a law degree as well. She is a member of the American Bar Association and the South Carolina Bar Association.



Murray Riley

Murray has a B.S. in Trade and Industrial Education from South Carolina State University. He is actively involved in the Aiken Community and affiliated

with various organizations such as the American Vocation Association, Allied Craftsman of Georgia, the S.C. and National Masonry Instructors Association and the American Entrepreneur Association. He resides in Aiken, S.C.



Charleen Townsend

Charleen has a B.S. in chemistry and microbiology. She holds an Ed.S. in Educational Administration. She has worked as a professional chemist for the State of Louisiana and is familiar with

environmental laws and issues. Ms. Townsend is affiliated with the NAACP and the American Chemical Society. She resides in Savannah, Ga.



Bill Vogele

Mr. Vogele has 35 years of engineering design and management experience, including nuclear space power. He holds a B.S. from the U.S. Naval Academy and a M.S. in Nuclear Engineering from the University of Michigan. Nuclear waste management and cleanup have been a concern of Mr. Vogele's since the 1960s. Mr. Vogele resides in Savannah, Ga.

CAB Has Second Process Improvement Retreat

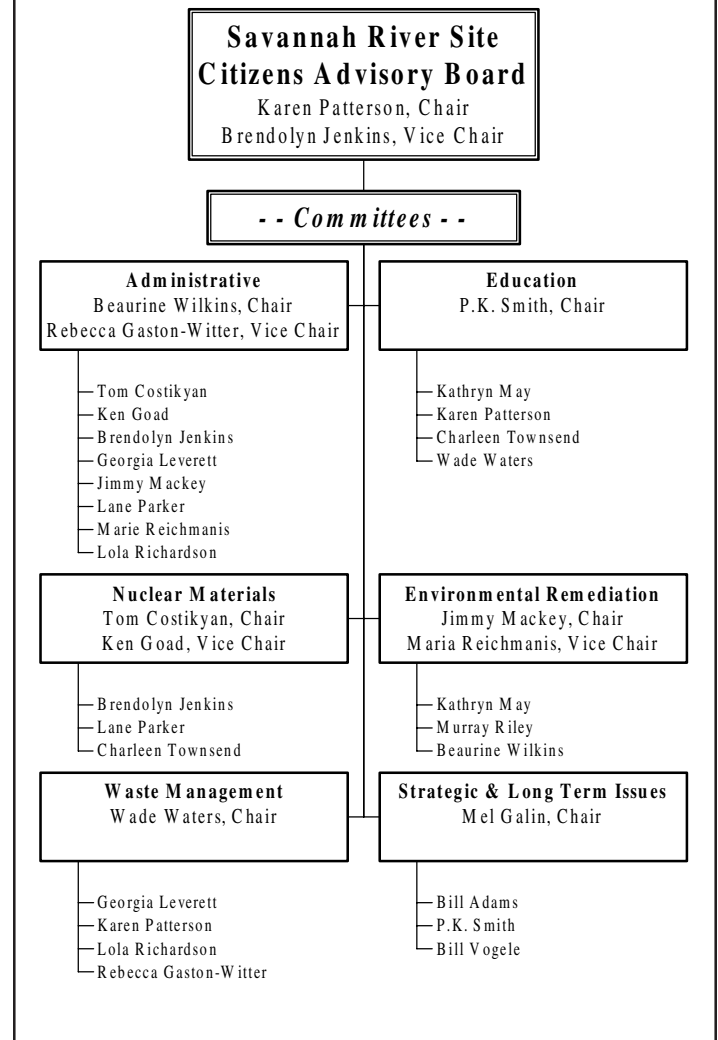
Members of the Savannah River Citizens Advisory Board participated in their second process improvement retreat on January 14-15, 2000. The retreat took place at Kiawah Island, SC. Board members as well as ex officio members from the DOE and SCDHEC attended.

The retreat began Friday evening to finalize the Board's organizational structure, including the formation of the following four committees: Environmental Remediation, Waste Management, Nuclear Materials, and Strategic & Long Term Issues. Mike Schoener made a presentation to the group on the Recommendation Process and the concept of developing a more formal CAB Work Plan.

On Saturday the participants were divided into red, green and blue teams to discuss Improvements to the Recommendation Process, Development of a CAB Workplan, Public Focus Groups and Improvements in Meeting Participation and Productivity. After small group discussions, all of the participants got together to discuss the ideas and agree on suggestions for improvement.

A number of suggestions were made as a result of the retreat. There were approximately 17 action items that resulted from the retreat. Some of the more significant include piloting monthly CAB meetings with alternate months dedicated to committees, developing guidelines for public focus groups, and developing a CAB Work Plan. A plan and schedule is being developed to implement the changes, and discussions will continue at the CAB public meetings. ■

Officer Elections Held in January




Stewardship

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represented at the workshop, they do reflect the consensus of the workshop participants and were forwarded to DOE-HQ as products of the workshop.

Stewardship issues vary significantly from site to site across the DOE complex. Nearly all of the workshop participants agreed that there should be continued dialogue among the SSABs. The Rocky Flats SSAB has tentatively agreed to host the next stewardship workshop in October 2000. As part of the settlement of the Waste Management PEIS lawsuit, DOE has agreed to fund a long-term stewardship study. Efforts in this area have only recently begun. Long-term stewardship is one of several issues to be reviewed by the SRS CAB Strategic & Long Term Issues Committee over the next several years. ■



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**SRS CAB 1998-1999
Bi-Annual Report**

Call 1-800-249-8155



Upcoming 2000 Board Meetings

May 22-23	Hilton Savannah Desoto	Savannah, GA
July 24-25	Sheraton Augusta Hotel	Augusta, GA
September 25-26	First Baptist Church	Barnwell, SC
	Barnwell State Park	Blackville, SC
November 13-14	N. Augusta Community Center	North Augusta, SC



Key criteria for Board membership includes a time commitment, and the desire and ability to work towards better and informed recommendations. To apply for membership to the Citizens Advisory Board, please call 1-800-249-8155

"Board Beat" is published semi-annually by the Savannah River Site Citizens Advisory Board. Content is provided by Board members and support staff. Please send your comments and suggestions to:

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